

What Is Claimed Is:

1. A planar sensor element for determining at least one gas component, comprising:

a layer structure including:

a heating element generating a heating power, and  
a layer-shaped heating conductor embedded in the  
heating element,

wherein the layer-shaped heating conductor is arranged in  
a layer plane of the layer structure to obtain an at least  
approximately homogeneous distribution of the heating power  
over a cross-section of the layer structure.

2. The planar sensor element according to claim 1, wherein  
the layer plane is centered with respect to the layer  
structure.

3. The planar sensor element according to claim 1,  
wherein, when the layer structure is unsintered, the  
layer structure further includes:

at least two function layer-side foils, and  
at least one cover foil-side foil having a  
predetermined thickness, and

wherein a total thickness of the at least two function  
layer-side foils is at least approximately equal to the  
predetermined thickness.

4. The planar sensor element according to claim 3, wherein  
the layer structure includes a further layer having a further  
thickness, and wherein the total thickness includes the  
further thickness.

5. The planar sensor element according to claim 1, wherein  
the layer structure further includes a plurality of  
electrically insulating layers, a first thickness of one of  
the electrically insulating layers being approximately equal  
to a second thickness of another one of the electrically  
insulating layers, and further comprising:

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a heating conductor embedded in the electrically insulating layers, the electrically insulating layers being formed on both sides of the heating conductor.

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6. The planar sensor element according to claim 5, wherein the layer structure further includes a sealing frame surrounding the electrically insulating layers, the sealing frame having a frame thickness which is equal to a thickness of the electrically insulating layers.

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7. The planar sensor element according to claim 6, wherein the electrically insulating layers include two electrically insulating layers.

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